Cercyonis pegala abbotti, New Subspecies (Lepid.: Satyridae)[1]

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ABSTRACT

Misidentification of *Papilio pegala* Fabricius 1775 has led to transfer of that name to an unnamed taxon in the same genus, *Cercyonis.* The error is corrected and the unnamed taxon dubbed *abbotti.* True *pegala* is restricted to sedge marshes along the coast from South Carolina northward to southern New Jersey and possibly (as *maritima* Edwards) Massachusetts. The newly named *abbotti* appears to inhabit xeric grasslands associated with woodlands in northern Florida and southern Georgia.

In the course of studying the Fabrician butterflies found in North America it has become evident that the name *pegala* Fabricius has been improperly applied for some years. I do not know who first made the error but it was fostered by W. H. Edwards in his "Butterflies of North America." In Volume 3, part 9, issued in 1890, Edwards figured on plate "Satyrus I" examples of what he called *pegala* and "*alope* var." These figures have become the standard interpretation of Fabricius's name. Actually what Edwards called "*alope* var." are good examples of true *pegala* Fabricius, 1775. What Edwards called *pegala* I am now naming *abbotti.*

Fabricius's types of *pegala* are in the University Museum, Glasgow, Scotland, and I figured them in [1966]. Edwards's figure 7 on the plate noted in the preceding paragraph is a perfect match for the lectotype of *pegala*, both in pattern and size. Edwards's figure 6 matches the upper side of the lectoparatype. In fact so good are these matches that Edwards's figures could be used as figures of the types! The text that accompanies this plate suggests that the specimens figured came from Cape May, New Jersey. On the previous page he assigned to this "variety of *alope*" the "diminutive *pegala* (as if from a starved caterpillar)" from Charleston, South Carolina, noted by him in 1880, p. 52. The Fabrician types of *pegala* came from Charleston, South Carolina (Brown, [1966] p. 135.) Other South Carolina specimens before me are the same size and coloring as *pegala* Fabricius and none look like *pegala* Edwards (*nec* Fabricius).

The radius of the left fore wing of the true *pegala* male is less than 30 mm and usually about 27 mm. The same dimension on *abbotti* males is over 30 mm and usually over 32 mm. The females are somewhat larger, usually by 3 to 5 mm.

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Generally speaking, in the Carolinas *pegala* males have one eyespot and the females usually have two. As you travel northward the second eyespot on the males increases in frequency until north of the mouth of Chesapeake Bay only rare individuals carry one eyespot. Thus northern *pegala* and *maritima* Edwards become indistinguishable, except by locality label. In Florida and southeastern Georgia *abbotti* very rarely shows a trace or more of the second eyespot on the males. This mark always is present on the females.

Perhaps one of the most telling differences between *pegala* and *abbotti* is habitat. The Fabrician species is associated with coastal and fluvitile sedge marshes, *abbotti* inhabits xeric grasslands in and at the edges of the woods.

Clark's (1951, pl. *2* figs. *h, i*) figures of *pegala* are of that taxon. Holland's (1931, pl. *26*, fig. 18) figure of "*pegala*" represents an aberrant female *abbotti* which lacks the anterior eyespot of both trios on the under side of the hind wing.

Cercyonis pegala abbotti NEW SUBSPECIES

Male: Radius of left fore wing is 32 mm. Upperside: The light field in the limbal portion of the forewing is a slightly orangy yellow. It extends from the radius to just beyond the anal vein. Between M_1 and M_2 there is a small eyespot—a dark circular band surrounding pale shining blue scales centered with a white point. The amount of blue and black scales in this spot varies among the syntypes. On the hind wing there is a trace of an eyespot in Cu_1-Cu_2—a tiny black dot surrounded by a narrow burnt orange ring. On other syntypes this spot ranges from lacking to 2.5 mm in diameter. It may be wholly black except for the ring or it may be almost entirely shining blue with the ring.

On the under side the fore wing pattern is repeated with the eyespot somewhat larger and the ground color lighter and irrorate with short dark lines. On the hind wing there are two groups of three eyespots, rarely only two in one or the other or both groups, set in a small brown field. On *pegala* these eyespots are in an irrorate field. The anterior trio is composed of elongate spots, sometimes so strongly so that the blue "pupil" is linear. The posterior spots are more nearly circular on specimens before me.

Female: Radius of left fore wing is 35.5 mm. The ground color is slightly greyer than on the male and there is an additional eyespot in Cu_1-Cu_2 on the fore wing. Occasionally there is a trace of a spot in M_2-M_3 on the hind wing. Under side as in the male with the additional eyespot on the fore wing.

Holotype: (Fig. 1) A male in the Carnegie Museum, Pittsburgh, Pa. labeled "Chipley/Florida" in manuscript, "Markoff Coll'n./Carn. Mus./Acc. 8992" a printed label, and "Cercyonis/pegala/Fabr." in manuscript.

Allotype: (Fig. 2) A female in the Carnegie Museum with identical labels to those on the male.

Paratypes: Four males and two females with the same labels as the holotype.

Other specimens of *abbotti* have been seen from the northern half of Florida and from southeastern Georgia.

I suspect that sibling species may be involved in the complex now lumped under *pegala* in the East. It would be worth investigating the life histories of the woodland versus the meadow forms. It should be born in mind that the descriptions of mature larvae of *pegala alope* presented by Edwards in 1882 (B.N.A. 2:[263–5], Satyrus II, III) and Boisduval and LeConte's ([1834], p. 228, pl. 59) larva based on Abbott's original plate are sufficiently different to represent different species in this genus. The figure (p. 59) called *alope* by Boisduval & LeConte is a good one of *abbotti* and matches Florida material.

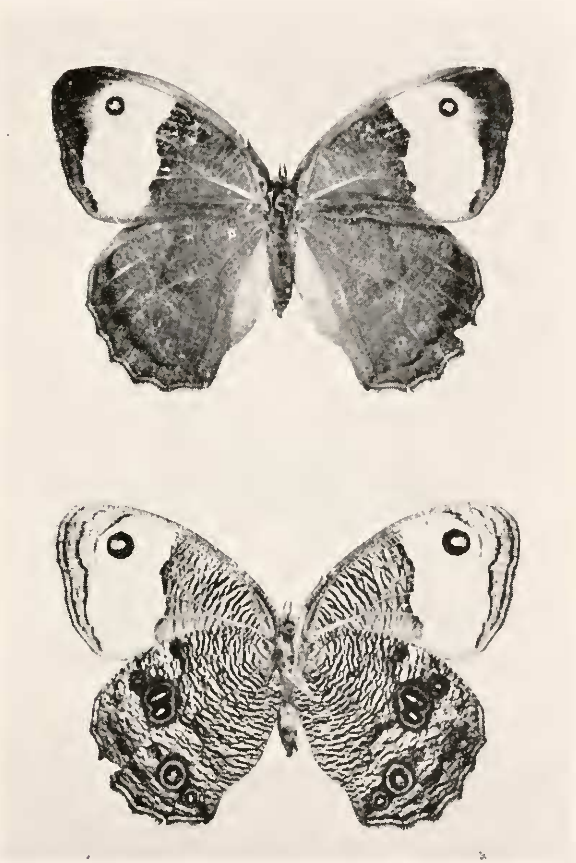

Fig. 1. Holotype, ♂, of *Cercyonis pegala abbotti*, new subspecies.

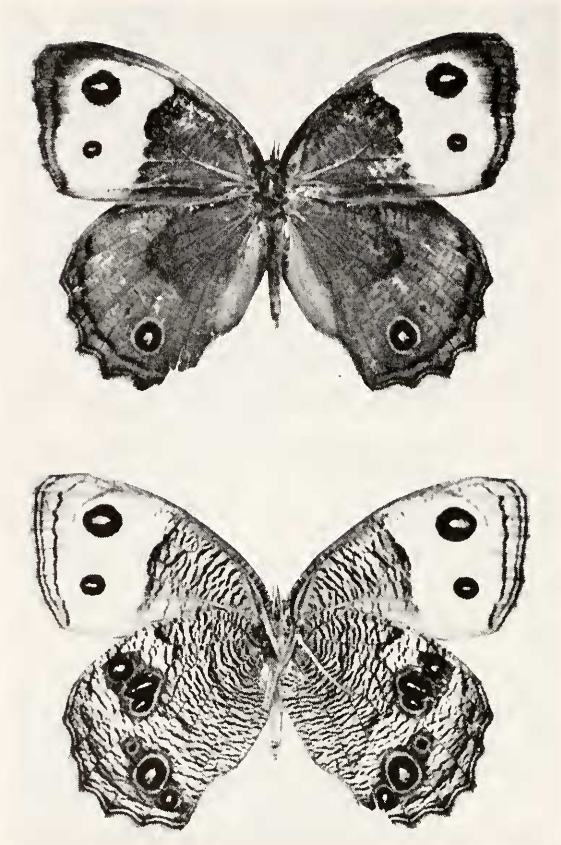

Fig. 2. Allotype, ♀, of *Cercyonis pegala abbotti*, new subspecies.

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